

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
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8. (Canceled)
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15. (Canceled)
16. (Canceled)
17. (Canceled)
18. (Canceled)
19. (Canceled)
20. (Canceled)
21. (Canceled)

22. (Currently amended) A system for use in a well, comprising:

a sensor system of one or more sensors ~~adapted~~ to measure a characteristic of a supply
and ~~adapted~~ to measure the characteristic in or near a downhole tool at a position
that is spaced from the supply measurement, the one or more sensors being
connected to a plurality of sensing locations such that at least one connection
between a sensor and a sensing location is, the connection to one or more of the
plurality of sensing locations being formed by a one or more dedicated snorkel
line lines

a lower completion in the well;

an upper completion above the lower completion;

an isolation system between and in fluid communication with the lower completion and
the upper completion, the isolation system is adapted to selectively fluidically
isolate the lower completion from the upper completion;

the upper completion comprising:

a packer comprising the downhole tool, the packer having a setting chamber
therein;

a gauge mandrel below the packer that has one or more sensors therein;

an annular control valve below the gauge mandrel;

an in-line control valve below the annular control valve;

a packer setting line in fluid communication with the setting chamber of the
packer and an interior passageway of the upper completion at a position
below the in-line control valve;

a pressure sensor in the gauge mandrel in fluid communication with the packer setting line adapted to measure a pressure in the control line.

23. (Original) The system of claim 22, wherein the system of one or more sensors comprises a differential sensor.
24. (Original) The system of claim 22, further comprising:
a first sensor adapted to measure the characteristic of a supply;
a second sensor adapted to measure the characteristic in or near the downhole tool, the
second sensor measuring the characteristic at the position that is spaced from the
supply measurement.
25. (Original) The system of claim 24, wherein the second sensor is positioned external to the downhole tool.
26. (Original) The system of claim 24, wherein the second sensor is positioned within the downhole tool.
27. (Original) The system of claim 24, further comprising:
a control line in fluid communication with the downhole tool and the supply;
the second sensor is adapted to measure the characteristic in the control line.
28. (Canceled)

29. (Original) The system of claim 24, wherein the second sensor is further adapted to measure the characteristic of the supply.
30. (Previously presented) The system of claim 22, wherein the supply is a downhole supply.
31. (Original) The system of claim 22, wherein the characteristic is pressure.
32. (Original) The system of claim 22, wherein the one or more sensors are pressure gauges.
33. (Canceled)
34. (Currently amended) The system of claim 22 ~~33~~, wherein the sensor system comprises a sensor adapted to measure the characteristic in the setting chamber.
35. (Canceled)
36. (Canceled)
37. (Currently amended) The system of claim 22 ~~36~~, further comprising a pressure sensor in the gauge mandrel in fluid communication with the interior passageway of the upper completion at a position below the in-line control valve.

38. (Canceled)

39. (Canceled)